



Paper 3/6 Public Sector session

For information

1. Purpose

1.1 To provide Commissioners with background information on agenda item 4, an information gathering session considering the role of the public sector in helping drive a just transition.

2. Background

2.1 This note provides detail of the participants who have been invited to give evidence as part of this session. Further background information is also included in the Annex to help inform the session.



What	Agenda item 4: Public Sector information gathering session
Who	<p>Kate Dapre, Head of Energy and Sustainability, NHS National Services Scotland</p> <p>Duncan Booker, Chief Resilience Officer and Sustainability Manager, Glasgow City Council</p> <p>Douglas Scott, Senior Policy Advisor, Scottish Borders Council</p>
Why	<p>An opportunity to examine the role the public sector may play in driving a just transition.</p> <p>Participants in this session have in-depth knowledge and experience of the public sector response to climate change. They will be well placed to answer questions on include:</p> <ul style="list-style-type: none"> • Current activities of public sector organisations helping to realise the wider social/economic benefits of decarbonisation. • Barriers to the public sector playing a bigger role in driving a just transition.
Additional background information	<ul style="list-style-type: none"> • Annex A: submission from Glasgow City Council • Annex B: submission from Borders Council • Annex C: submission from Aberdeen Heat and Power • Annex D: submission from UNISON



Annex A: submission from Glasgow City Council

Glasgow City Council wishes to support the growth of a cleaner, greener and low carbon economy as part of its broader ambitions for a more sustainable city. It is currently home, for instance, to the largest number of renewables jobs in the country and is an exporter of skilled workers to the sector elsewhere in Scotland and the UK. The Council also has a community leadership role and it is fully acknowledged that it needs to encourage residents, businesses and institutions to make the transition to a lower carbon future.

Counting green jobs is not a straightforward matter and the Council is currently looking at ways of getting a better sense of what constitutes a green job, how many there are currently, and where growth opportunities lie. A refresh of the city's economic strategy is being drafted for publication later this year and will incorporate a strong focus on these issues, particularly in the light of the Council's declaration of a climate and ecological emergency at its meeting of 16 May.

The Council has also been considering the transition to a greener economy in terms of its resilience agenda. In this latter aspect, the transition clearly presents challenges in terms of current occupational roles and how the public sector can work to avoid a repetition of the impacts of industrial collapse which took place in the 1980s/90s. There are similarities with the impact of further automation and robotics on current jobs in terms of getting the right role for the public sector in a context where many of these changes are driven by global forces over which little local influence can be asserted. At the same time, it is also recognized that here are also real opportunities arising from such transitions, particularly in drawing upon the city's academic sector and strong engineering traditions.

The Council is conscious of the need to ensure that a local pool of talented and qualified people can take such opportunities. It is therefore working closely with schools and businesses to encourage greater interest in the STEM subjects and to challenge occupational stereotypes, especially around gender. Companies in the sector have also pointed out challenges in relation to the demographics of their own workforces - many of whom are ageing and will need to be replaced as they come to retire over the next few years. If the city can get a more co-ordinated approach to bringing young people forward for apprenticeships, further and higher education, and equip them with aptitudes relevant to the needs of the sector then there is a real opportunity for creating a skills pipeline which connects green industry demand and local labour supply. This area is therefore part of a discussion in which the Council is engaged across key public sector agencies, such as Skills Development Scotland, as well as with business and academic partners.

Social justice is at the heart of Glasgow's approach to sustainability. The Council manages the most extensive programme of domestic energy efficiency support in the country in order to tackle fuel poverty and help to provide affordable warmth for its most vulnerable citizens. Further plans by the City Government for an energy services company and more low carbon heating systems will contribute to this important agenda. Engagement with communities in the age of climate change is also particularly significant and the Council has helped to lead a project called Weathering Change in the north of the city to grow local action in partnership with communities on climate issues. The city is also fortunate to have a unique global resource at Glasgow Caledonian University, called the Centre for Climate Justice, which works to support what Mary Robinson calls 'a just transition to a safer world'. It reflects the city's outward-looking and

internationalist perspective on this issue, as well as acknowledging the post-colonial legacy of Glasgow's role in empire.

Glasgow has developed a strong role for the circular economy in driving more green business practice and sustainable profits. This has been led by the Chamber of Commerce, with funding support from the national agency, Zero Waste Scotland. It directly engages with SMEs in the city, encouraging innovation and providing a supportive culture for exploring circular opportunities. The Leader of the Council has made a commitment to publishing a circular route map for Glasgow by the end of 2019.

Annex B – submission from Scottish Borders Council

- **What are likely the main employment impacts (good and bad) of the transition to a low carbon future and what is the role of the public sector in managing them?**

Different energy technologies – Renewables including wind, biofuels, geothermal, solar, hydro etc.; and energy efficiency create a context for increased employment opportunities. Renewables and biofuels have particular relevance in the Scottish Borders.¹

In 2012 onshore wind energy contributed at least £10.8 million gross value added (GVA) to the Scottish Borders economy and supported 115 local jobs. By 2020 this impact could be up to £33.3 million GVA and 325 jobs.²

Questions about whether the Borders economy is prepared for/has the necessary skills and capacities to leverage these opportunities. Need for green-specific labour market and skill policies, including top-up training for mid-career workers who need to adapt to greener ways of working.

Already the case that Borders does not enjoy much added value from its substantial net production of energy/renewable energy.

Energy Efficient Scotland and the Local Heat and Energy Efficiency Strategy (LHEES), are being developed and consulted on by Scottish Government. They are designed to increase the EPC energy rating of properties (domestic and non-domestic) to EPC C where cost and technically feasible. We have developed a draft area based LHEES pilot in Peebles and have an Energy Efficient Scotland project in Tweeddale, engaging self-funded market. Upscaling these schemes across the Scottish Borders has significant potential with respect to the supply chain to deliver the energy efficiency measures (internal wall insulation, cavity wall, underfloor/loft and glazing). There are also job opportunities with engagement with owner occupiers and behavioural change support. Concerns remain about whether this supply chain (with many one person trades and smaller

¹ See Windfarm database - Dec 2018 (Database Report) -

https://www.scotborders.gov.uk/downloads/file/528/windfarm_database_-_dec_2018_database_report

² See 'Economic Impact of Wind Energy in the Scottish Borders' – Biggar Economics 4th March 2013:

https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=13&cad=rja&uact=8&ved=2ahUKEwiR0bCutcPiAhWlz4UKHShPAaUQFjAMegQICRAC&url=https%3A%2F%2Fwww.scotborders.gov.uk%2Fdownload%2Fdownloads%2Fid%2F102%2Fscottish_borders_wind_energy_economic_impact_study.pdf&usq=AOvVaw2c805qQEFzLagWlU2qYiNd

SMEs) is adequate to deliver the scale of retrofit implied by the Scottish Government, as outlined above. There is also a role in training and the Borders College on this area.

Along with the huge opportunity there is also a potential risk to companies operating in the current heating sector. As we transition away from fossil fuel based heating systems there will be a requirement for installers to also transition their skill set to be able to deliver and take advantage of a changing market. Those that do not will face a shrinking market.

The public sector could support this by creating opportunities for existing contractors to learn from centrally procured projects but there would be potential commercial conflicts to overcome.

There are a number of private sector and community energy generation initiatives but more needs to come to develop this sector and gain added value

- **Are there any wider opportunities and challenges from this transition, and what is the role of the public sector in managing them?**

Combined ambition for Borderlands Inclusive Growth Deal is to significantly enhance this work establishing a move to a whole systems approach to energy generation and its utilisation, increasing local energy systems, reducing carbon emissions, energy costs and fuel poverty, while increasing clean economic growth and benefitting from inward investment and job creation.

Establishing baseline information – the Borderlands Energy masterplan as part of the Borderlands Inclusive Deal – with a view to planning how the region (comprising Northumberland, Cumbria, Carlisle City, Dumfries & Galloway, Scottish Borders) optimises benefits from its central role as a leading regional producer of low carbon energy.

Public sector is also key to determining strategic priorities for the region e.g.

- Energy Efficiency
- Renewable Power Generation
- Low Carbon Heating (on and off gas grid)
- Investment in Low Carbon Business Growth
- Attracting and Growing Low Carbon Supply Chains
- Reducing Fuel Poor Households
- Reducing Cost of Energy
- Local Smart Energy Systems
- Increasing the Switch to Ultra Low Emission Vehicles and Low Carbon approach to transportation (public/community/private)
- Policy and Planning Alignment
- Supporting business and community renewable energy initiatives

Public sector has a role in supporting eco-innovation and the diffusion of green technologies by strengthening initial education and vocational training. The potential for Scottish Borders Council

and South of Scotland Enterprise Agency setting examples and a way forward is hugely significant for the Scottish Borders and the South of Scotland area

Potential challenge around the supply chain for energy efficiency / retrofits and the quality assurance of the work complete. Role of public sector is potential enforcement of energy efficiency across the different tenure types (Owner occupied / private rented).

Key wider opportunity is that addressing energy efficiency is a key approach to address fuel poverty – improving direct/in-direct health impacts, as well as well-being of households.

- **In your opinion, what are the main barriers to realising any opportunities from this transition? What action should be taken to mitigate against any adverse consequences?**
 - Inadequate strategic understanding and ambition.
 - Inadequate management experience and governance for strategic decision making.
 - Insufficient in-region skills and capacity, particularly in relation to delivery – construction and generation/development sectors.
 - Challenge of attracting external investment.
 - Rural nature of Borders in terms of the spread out nature of the opportunity and limited critical masses of population unlike cities.
 - Demonstrator projects show projects as unviable or there are difficulties in undertaking demonstrator projects because of a higher risk profile due to lack of capability and capacity and the rural nature of the region.
 - Lack of final producer interest to deliver schemes.
 - Lack of final (in-region) consumer demand (linked to rural nature of the region).
 - Lack of capability and capacity within communities to undertake projects.
 - Physical limitations such as grid connections etc.
 - Consistent resource (capacity/time/funding).
 - Quality of building stock (when considering retrofitting) – lot of older properties particularly in town centres and more rural locations.
 - Uncertainty in market direction and scale.

Annex C – submission from Aberdeen Heat and Power

In 2002 Aberdeen City Council created Aberdeen Heat & Power Co Ltd, a not-for-profit independent company, to develop Combined Heat and Power schemes in the city “for the benefit of the people of Aberdeen”. Combined Heat and Power (CHP) is a system whereby electricity is generated locally for sale and the heat emitted by the generator is captured and used to heat properties instead of being released to atmosphere. CHP district heating is appropriate for high heat density areas.

Aberdeen City Council has 4,500 flats in 59 multi storey blocks in clusters spread across the city. In 1999 these blocks were surveyed and were found to have very low energy ratings and were expensive to heat. Approximately 70% of the tenants were in fuel poverty with all the related social problems of under heating, self-disconnections and fuel debt. An options appraisal was carried out on the multi-story blocks with the following objectives of:

- tackling fuel poverty in hard to heat homes
- reducing carbon emissions
- being safe (i.e. we wouldn't put gas into multi story blocks)
- being affordable for the Council in capital terms.

The recommended option was to install CHP district heating in clusters of multi-story blocks.

The Council recognised that developing and managing CHP district heating is a specialist area of work and the Council did not have available the expertise in house. Consideration was given to appointing a private sector ESCo which could gain access to third party investment to accelerate deployment but the required returns on investment would have significantly increased heat cost, undermining the objective of reducing fuel poverty. The decision was, therefore, taken to establish a local ESCo as an independent not-for-profit company – Aberdeen Heat & Power.

Once the company was established in 2002 the initial focus was on a cluster of 288 flats in 4 blocks at Stockethill. All the flats had electric storage heating. It was estimated that energy ratings could be substantially improved, CO² emissions reduced by 40% and most importantly, the tenants could have warm homes for approximately half of the previous cost. The total cost of the scheme was £1.6 million of which £730,000 was provided by the Community Energy Programme. Tenants and local residents were consulted at every stage. Their input was, and continues to be, vital to the success of our CHP projects.

Since then Aberdeen Heat & Power has had a continuous development programme and by now provides affordable heating and hot water from CHP stations to 36 of the multistories, 3 low-rise sheltered housing schemes, and 227 new build Council houses, plus gas-fired communal heating to another 12 of the multistories (these are ready to be linked into the wider heat network once it reaches their area), and 19 non-domestic buildings (schools, offices, swimming pools etc).

By connecting non-domestic properties to the heat networks we achieve a smoother pattern of heat demand which results in increased efficiency of the CHP generators. Domestic heat demand peaks in the mornings and evenings, whilst heat demand for a school or office peaks during the day, and a swimming pool can be heated overnight. Increased efficiency means lower running costs and the savings are passed on to the occupants of the domestic properties as low heat charges. As an example, we charge tenants of a two bedroomed multi story flat a fixed rate of £10.54 per week for their heating and hot water. This heat charge has not increased for the past 7 years. No-one connected to our district heating networks is now in fuel poverty. All our surpluses are used to keeping the heat charges at affordable warmth levels.

The Board of Aberdeen Heat & Power is made up of volunteer Directors with a range of skills. We directly employ 4 full time and 1 part time member of staff and appoint external specialists as required, including a CHP Engineer, for financial services, procurement of fuel, HR, and legal services.

Whilst CHP district heating has higher capital costs than installing individual gas or electric heating systems, the running cost paid by the tenants are considerably lower. The Council considered it necessary to take account of whole life costings when considering the type of replacement heating system to be installed in the multistories and on that basis CHP district heating was the most economic system overall. Back in 2002/3 when we were connecting the first cluster of multistories we were fortunate

that a government grant system existed – the Community Energy Programme run by DEFRA. This provided up to 40% of the capital costs of installing CHP district heating schemes. We were a Pathfinder for this grant system and managed to secure this funding for the first three schemes we developed which covered a total of 14 multi storey blocks. The existence of this grant system made it affordable for the Council in capital terms to install these first three CHP schemes and, once the grants ended, the benefits of installing CHP were evident, not only in lifting households out of fuel poverty, but also in indicators such as higher demand for these flats, lower turnover of tenants, and lower rent debt. The experience of developing the first three CHP schemes convinced the relevant decision makers in the Council to continue with investment in this type of heating, despite it being more expensive in capital terms.

Once a district heating network is in the ground, and controllable radiator systems installed in the connected buildings, the type of fuel used at the “front end” can be changed fairly simply. What fuels our CHP stations is gas as this is the most economic fuel type at present, but we are continually reviewing the options relating to a move to more renewable fuels, such as Energy from Waste, large scale heat pumps or hydrogen. The only plant we would need to change to accommodate the use of a different fuel type would be the plant in the CHP stations.

In Aberdeen we have a strategic plan in place for the development of district heating across the whole of the high heat density areas of the city. From a desktop study we have identified the potential heat demand in each area. That has allowed us to future proof our heat networks at each stage in development, so avoiding stranded islands of district heating that cannot be connected together into a city wide system. Our plans are to have multiple CHP stations around the city linked into one city-wide heat network, with connected households being “fuel poverty proofed”.

Annex D – submission from UNISON

Introduction

UNISON is Scotland’s largest trade union with members across the public, private and voluntary sectors. We are the largest trade union in the gas and electricity sectors. Many of our members work directly in jobs relevant to the many areas involved in tackling climate change, including: building control, economic development/regeneration, education/training, energy, environmental health, planning and emergency planning, procurement, sustainable development, water, SEPA, and a range of other work. The public sector organisations employing most of our members must comply with the statutory public bodies climate duties, aimed at ensuring the public sector leads by example on emissions reduction, sustainability and adaptation. Our members also have a direct interest (with the general population) and a citizenship interest in the global climate emergency and how Scotland implements a just transition to meeting the forthcoming new interim and net zero legislative targets - targets based on the 2018 UN IPCC 1.5C report and the subsequent 2019 Committee on Climate Change advice. UNISON members campaigned with trade unionists internationally for the Just Transition concept to be included in the Paris Agreement and for a Just Transition Commission in Scotland. With the Just Transition Partnership and Stop Climate Chaos Scotland, we call for an independent, statutory Just Transition Commission advising the Scottish Government for the duration of the targets in Scotland’s climate legislation. We welcomed the establishment by the Scottish Government of the Just Transition Commission, due to report within two years. We are pleased to submit this short introductory briefing prior to the Commission’s June meeting, and will submit additional information/briefings (incl on the power sector) as/when appropriate, in discussion with the Secretariat.

General overview - buildings, transport and the public sector.

Economic and industrial and ownership strategies

Economic and industrial and ownership strategies are key overall in the transition to a zero carbon economy, as well as in these three sectors. UNISON has strongly opposed the ideologically driven austerity policies of the UK Government, arguing that this was totally the wrong economic approach to deal with the aftermath of the financial crash. We have, with others, including the STUC, long called for a proper economic and industrial strategy, with sustainable jobs at the heart, and for climate change to be treated as an urgent health and safety issue for the planet. We welcome the current renewed interest in green industrial strategies here, at UK level, and internationally. Scotland must deliver on this, with a joined up approach that takes on board the arguments made by so many, including the Just Transition Partnership, about the importance of the Scottish National Investment Bank (SNIB) and Scottish Publicly Owned Energy Company (POEC) in delivering a just transition³. Some specific areas for UK and Scottish government investment must include Carbon Capture and Storage and hydrogen projects⁴ to keep options in these areas, including conversion of the gas network to hydrogen, open in the future. Planning for the Just Transition must address issues of energy and transport ownership. In energy, we need a nationally co-ordinated plan to tackle gross underinvestment. The current spread of ownership does not allow this to happen. We believe energy and transport are best in the public sector, with the power to drive change forward under democratic control. We argued for this in recent submissions to consultations on the POEC⁵ and on the Transport Bill⁶.

Buildings, transport and public sector

It is impossible in a short briefing to address such wide areas in detail. We only touch on each, below, looking at: a) opportunities and challenges for jobs resulting from the low carbon transition b) wider related opportunities and challenges for the public/consumer.

Buildings

- a) There is a recognised key opportunity for job creation in major domestic and non-domestic buildings energy efficiency programmes, including retrofit for public sector buildings where suitable. This requires urgent investment at scale, but with considerable economic benefits to communities, with local economic impact. Municipal energy schemes must also play a role, with the benefit of income generation. (See public sector.)
- b) Lessons must be learned from the problems of some previous schemes. Quality schemes within the public sector will deliver the best results for consumers, for addressing fuel poverty, and for skills development and job creation, with increased tax revenue etc.

Transport

- a) Quality jobs could be provided through investing in much improved integrated, sustainable public transport, as well as in the switch to electric vehicles and the use of hydrogen powered buses (used in Aberdeen already) etc. We support rail nationalisation and re-regulation of the buses, more municipal bus companies, such as Lothian Transport, and a massive expansion in active travel infrastructure. Innovative pilot projects could include a trial of free public transport.

³ <https://unison-scotland.org/library/Paving-the-Way-for-a-Just-Transition-Briefing-for-MSPs-June-2018.pdf>

⁴ <https://www.unison.org.uk/news/press-release/2018/11/government-must-give-bold-hydrogen-scheme-go-ahead-says-unison/>

⁵ <https://unison-scotland.org/library/UNISON-EJFWCttee-POEC-Sept18.pdf>

⁶ <https://unison-scotland.org/library/UNISON-Transport-Bill-Submission-Sept18.pdf>

This is being piloted in five German cities. Scotland should look at a trial, linking with industrial strategy on support for electric/hydrogen buses.

b) It is vital to address inequalities through improved public transport, ensuring accessibility, safety and affordability of alternatives to cars, particularly for rural areas, shift workers, families, etc. This needs redesigned city centres and travel to work pilot projects. These could help boost local economies, as well as improving air quality, health and wellbeing. Unions argue for negotiated green workplace⁷ agreements covering travel to work plans.

Public sector

a) The public sector must lead by example across policy, including its key role in procurement and supporting local supply chains, relevant to trade union criticisms of broken jobs promises on EDF's offshore wind project NnG. The new Scottish publicly owned energy company should have a key role in the just transition, involved in generation and transmission, not just supply. SNIB also, as above. We need a major expansion of municipal and community energy schemes^{8 9}. Even if small job numbers, they could be a considerable local economic boost in remote/rural areas and numbers from a range of schemes will add up, also with income generation benefits for public bodies. We need a climate change resilience public services strategy and infrastructure funding programme. b) Public sector action can ensure communities are not left behind. It must be accelerated in recognition of the climate emergency¹⁰ with adaptation/emergency planning crucial. Investment in green workplace action¹¹ is needed. Divestment/reinvestment protects pensions and invests for the public good¹².

⁷ <https://www.tuc.org.uk/sites/default/files/extras/gogreenatwork.pdf>

⁸ <https://www.unison-scotland.org/library/EFJWCteeDraftBudget19-20.pdf>

⁹ <http://www.apse.org.uk/apse/assets/File/Municipal%20Energy%20Web%20version%20final.pdf>

¹⁰ <https://www.apse.org.uk/apse/index.cfm/members-area/briefings/2019/19-23-climate-emergency-council-declarations/>

¹¹ https://www.tuc.org.uk/sites/default/files/The_Union_Effect_Greening_The_Workplace_Covers_2014_All.pdf

¹² <https://foe.scot/resource/divest-reinvest-councils-report/> <https://www.unison.org.uk/content/uploads/2018/01/Divest-from-carbon-campaign.pdf>